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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,286	02/20/2002	Peter R. Jepson	06160-1P67	6625

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BAYER CHEMICALS CORPORATION  
PATENT DEPARTMENT  
100 BAYER ROAD  
PITTSBURGH, PA 15205-9741

EXAMINER
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OLTMANS, ANDREW L

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/079,289

Applicant(s)

JEPSON ET AL.

Examiner

Andrew L Oltmans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12-30-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 8-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-7 in the response to restriction requirement of December 30, 2003 is acknowledged.

### ***Claim Objections***

2. Claim 2 is objected to because of the following informalities:

Claim 2 recites "an constant mix", which appears to be a typographical error wherein "an" should be "a". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

### ***Turner 6,331,233***

4. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Turner 6,331,233 (Turner).

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Turner teaches a tantalum sputtering component (i.e. a plate having a thickness, a center and an edge) having a uniform texture (col 1, line 11), as recited in claim 1, wherein the texture includes a mix of (100) and (111) crystal orientations (Table 1), as recited in claim 2, wherein the average grain size is less than 100  $\mu\text{m}$  and preferably less than 50  $\mu\text{m}$  (col 4, lines 50-53), as recited in claim 3, and wherein the purity is at least 99.95% (col 6, lines 39-40), encompassing the purity instantly claimed in claims 4 and 5. The claims do not distinguish over the teachings of Turner.

It is noted that the recitation of "substantially [a] constant mix" is merely a relative term and does not distinguish over any combination of (100) and/or (111).

***Michaluk et al. 6,348,113***

5. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Michaluk et al. 6,348,113 (Michaluk '113).

Michaluk '113 teaches a tantalum sputtering component (i.e. a plate having a thickness, a center and an edge) having a uniform texture (col 1, line 60), as recited in claim 1, wherein the texture includes a mix of (100) and (111) crystal orientations (col 2, lines 20-27 and Figures), as recited in claim 2, wherein the average grain size is less than 150  $\mu\text{m}$  and preferably less than 50  $\mu\text{m}$  (col 6, lines 52-60), as recited in claim 3, and wherein the purity is at least 99.50%, preferably greater than 99.995% (col 6, line 4; col 6, lines 25-27), encompassing the purity instantly claimed in claims 4 and 5. The claims do not distinguish over the teachings of Michaluk '113.

It is noted that the recitation of "substantially [a] constant mix" is merely a relative term and does not distinguish over any combination of (100) and/or (111).

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***International Application WO 99/66100 A1***

6. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by International Application WO 99/66100 A1 (WO '100).

WO '100 teaches a tantalum or niobium (see page 2, line 5) sputtering component (i.e. a plate having a thickness, a center and an edge) having a uniform texture (page 1, line 6 and page 8, lines 15-17), as recited in claim 1, wherein the texture includes a substantially uniform (100) crystal orientation (col 2, lines 20-27 and Figures), as recited in claim 2, wherein the average grain size is preferably less than 50  $\mu\text{m}$  (page 8, lines 15-17), as recited in claim 3, and wherein the purity is at least 99.95% (page 6, line 4; page 8, lines 15-17), encompassing the purity instantly claimed in claims 4-7. The claims do not distinguish over the teachings of WO '100.

***Michaluk et al. Patent Application Publication 2002/0072475 A1***

Claims 1-3 and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Michaluk et al. Patent Application Publication 2002/0072475 A1 (Michaluk '475).

Michaluk '475 teaches a niobium sputtering component (i.e. a plate having a thickness, a center and an edge) having a uniform texture (paragraph [0017]), as recited in claim 1, wherein the texture includes a mix of (100) and (111) crystal orientations (paragraph [0019]), as recited in claim 2, wherein the average grain size is less than 150  $\mu\text{m}$ , preferably less than 50  $\mu\text{m}$  (paragraph [0029]), as recited in claim 3, and wherein the purity is at least 99.99% (paragraph [0027]), encompassing the purity instantly claimed in claims 6-7. The claims do not distinguish over the teachings of Michaluk '475.

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***Japanese Patent JP 2000104164 A***

7. Claim 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent JP 2000104164 A (JP '164).

NOTE: References to JP '164, below, are either to the English language abstract, or to the full English language translation provided.

JP '164 teaches that the niobium sputtering target (i.e. a plate having a thickness, a center and an edge) is preferably made of a high grade (i.e. high purity) Nb having a substantially uniform grain size of less than 100  $\mu\text{m}$  and preferably 50  $\mu\text{m}$  (paragraphs [0034] and [0045]). The claims do not distinguish over the teachings of JP '164.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L Oltmans whose telephone number is 571-272-1248. The examiner can normally be reached from 7:00 to 3:30, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "A. L. Oltmans", is positioned above the printed name.

Andrew L. Oltmans

Patent Examiner

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